Paws

Teacher's Guide

Jacaranda Software

The *Paws* Teacher's Guide was written by Siggy Nowak.

Introduction

Typing is an acquired skill. With the introduction of computers into classrooms, it is fast becoming a mandatory skill. Like all skills it needs to be practised regularly over a period of time. The issues of how children should learn to type and when is the best time for them to begin learning provoke numerous arguments. With limited computer resources in most schools it does make sense to teach students how to type efficiently. If students spend the majority of their time trying to find where the keys are, they have little time to spend on creativity. Some simple ideas that can be used by teachers are listed on pages 3 and 4.

What is keyboarding?

The skill of typing or keyboarding is related directly to efficiency. The overriding aim is to type more quickly than one can write. An efficient typist is one who
1. knows intuitively (through experience) where the keys are,
2. strikes the keys using an efficient fingering technique,
3. types at a consistently high rate without pressure, and
4. appreciates that good posture and proper furniture are essential aids.

The majority of efficient keyboarders are "touch typists" — they do not look at the keys as they strike them.

What is touch typing?

Touch typing is being able to use a keyboard correctly without looking at the keys. It needs patience, practice and repetition. The middle row of letters — ASDF and JKL; on any "QWERTY" keyboard — are called the "home row", and each of the four fingers on each hand sit gently above those keys when not typing another key. The fingers return to their home position when not in use. The important thing is that each key on the keyboard is struck by only one finger. The right thumb is used to press the space bar. We can drill the appropriate finger so that when the eye sees the letter "F" or "J" the first finger on the left hand, knowing that those letters belong to it, and it alone, will type them. In this way typists can be reading what is to be typed and checking what

has been typed without looking at the keyboard. The fingers know where to go and do not need the eyes to find the keys. It is much more exciting for a child typing a story to watch the story unfold on the screen than to have to look at the keyboard and hunt out the keys.

Getting ready to type

Correct posture and the furniture used by the typist are important considerations. There will be plenty of unreleased tension when typing (particularly for the beginner) so it is important to acknowledge when this pressure is building up and relax as often as possible. It is preferable to type at a slower but steady pace than to go in short sharp spurts. All typists should sit up straight (no slouching) with their backs supported and feet flat on footrests or the floor. Arms should be relaxed and by the sides. Forearms should be at the same angle as the keyboard and wrists should be kept low but not resting on the bottom of the keyboard. The screen should be at eye level with no reflections from lights or windows.

Setting goals

If the aim in learning how to type efficiently is to type more quickly, then a first suggestion is to set a test for students. How many words per minute can they write legibly?

Their short-term aim is to surpass this standard in their typing.

The long-term aim is to make students realise that touch typing is the most efficient method of typing. Looking at the keys while typing is not recommended as it promotes bad habits that are difficult to change. Maximum speed, using touch typing techniques, easily surpasses the nimblest one-finger "look" typist. It has also been proved that not having to look at the keys is a marvellous release with more time spent on creativity and less on mechanics.

Obviously, it would be rash to suggest that it is necessary for children at the very junior end of the school to come to grips with touch typing, but teachers can nevertheless do much to make their students familiar with the keyboard at a very early age.

What is most important is that skills need to be introduced and practised in an interesting and appealing way.

The limitations of computers when learning to type

Using *Paws* on its own will not necessarily guarantee a better typist. Bad habits can easily be picked up and good techniques not followed in the quest for short-term speed improvement. The aim of *Paws* is to provide a self-paced program that gives individuals stimulation to better their typing speed. *Paws* gives hints about correct fingering, but cannot recognise incorrect finger placement. The teacher needs to be aware of this, as does the student.

Some classroom activity ideas for beginners

- Both hands and all fingers should be used on the keys. (For the very little ones at least make them aware that they need to use more than one finger.) To show this, divide the keyboard in half using a short piece of wool. Left-hand fingers live on the left side of the keyboard and right-hand fingers on the right side.
- It is useful to remember that using a keyboard is very like using an alphabet. Introduce and work each finger in a set course by all means, but use material which is meaningful and based on the children's own language. How many words can be made just by using the "home row" keys? Vowels should be introduced next so that a word list can be built up for use in other lessons. *Paws* "open screen" facility is of great use in these sorts of activities as students can use it as a simple word-processor.
- Use an overhead projector to project an image of a keyboard to the front of the class. Have the children strike the key on an imaginary or cardboard/photocopied keyboard or even type out the word in the air as shown on the projection without looking at their fingers. Having the keyboard sheets taped to each desk means that the keyboard can then play a significant role in everyday language and word study activities. Words can be spelled out aloud to be typed and unfinished sentences called out to be completed. Finger movement will be clearly seen on the screen to be copied by the students.

Get the child's friend to check if the right fingers are used. To help the smaller students who easily forget where their fingers go, have stickers with the appropriate letters on their fingernails so they don't have to lift fingers to check the key underneath. (These could be in lower case if necessary.)

- Cut up keyboard charts (with letters marked) so that you have squares with one letter on each. Have a race to see who is first to arrange them over a blank chart in the correct positions.
- Play Bingo using colored tokens placed over a keyboard chart on the desk.
- A simple idea is to have the children colour in keys on the chart (different colors for each finger) as they are introduced.
- Make a jigsaw by cutting up a keyboard chart into random shapes.
- Using carpet squares, plastic or butcher's paper draw up a large keyboard on the floor and play hopscotch, "twister" or "Can you hop the word?".
- Get the children to pin large letters of the alphabet on themselves and then arrange themselves at various levels (using chairs, etc.) into one large keyboard for a photograph.
- Use small boxes, each labelled with a letter of the keyboard, and arrange these on the wall using hooks to form a wall keyboard.

Regular practice is a necessity!

There are many texts on the subject of learning to type. Most have diagrams of correct techniques and examples of suggested repetitive exercises. There are many approaches, too. With children, any approach needs to be embarked upon with interest, enthusiasm and excitement. A variety of methods can be used, but whatever method is used, remember that for any skill to be developed it needs to be practised regularly.

Setting aside a short time each day or integrating it in the language program is the best way to get results. It is far better to set aside a short session each day than a large session once a week.

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How *Paws* is organised

The main menu

The main menu lists the lessons on each disk. Students should complete the lessons in the order they are listed.

Lessons are selected from the main menu. In addition to the lessons there is the open screen facility, which allows students to type freely (limited to a definite period if required). To use the open screen, press S. With a printer attached they can obtain copies of their work.

Music may be played during the games; it can be turned on or off while the main menu is on the screen by typing M (for music) or N (for no music).

Order of key presentation

Lesson number	Keys introduced	Lesson number	Keys introduced
0	Introduction	9	B and P
1	ASDF JKL; (Apple)	10	M and X
	ASDF JKL: (C-64)	11	Y and Z
2	E and H	12	Q and comma
3	O and R	13	V
4	I and T	14	Shift lock and ?
5	Left SHIFT and	15	1234567890
	full stop	16	Symbols ( ) ' " − + */:
6	U and C		(Apple)
7	N and W		Symbols ( ) ' " − + */;
8	G and right SHIFT		(C-64)

Contents of a typical lesson

The main menu lists the lessons on each disk. Students should complete the lessons in the order they are listed.

After lesson 1, each lesson starts with a review of the skills learned previously. A useful feature is that students can begin at any part of a lesson if they did not finish the entire set of exercises during their previous session.

Lessons are organised into four sections:

Review: This presents two drill lines and a technique review, emphasing the keys introduced in the previous lesson.

New keys: The new key is introduced and two to four practice exercises are presented. Following this, two lines are presented in which only correct keystrokes are accepted. Subsequent lines check the whole word after each space is struck and, if wrong, the whole word must be typed again. However, after three attempts the program accepts whatever has been typed and moves on to the next word.

Build speed: Four drill lines are presented. After RETURN is struck, the line is analysed and, if 50% or more of the words are correct, the student's typing speed is shown in words a minute (WAM). If less than 50% of the words are correct, the user has to repeat the line (up to five times before a new line is presented).

Paws' Game and Paws' Run: These are games in which children use their keyboarding skills in a less formal setting.

In Paws' Game, the student races Paws to a ball. The student's typing speed on each line is used to determine Paws' speed for the next line.

In Paws' Run, the cat moves through a simple maze towards a treasure. After each line the student's speed is displayed. The typing activity is kept separate from the screen action so as not to distract the student. The score is calculated by comparing the student's speed with the speed goal for the lesson. The higher the speed, the higher the score.

The report

At the end of each lesson, following the game, a report is presented on the screen and can be printed if a printer is connected.

This report consists of the student's name, the date entered at the start of the session, the highest speed reached in the game and build speed sections, the highest score for the Paws' Run game and a lesson code.

Here is a typical report for lesson 4:

The lesson code consists of four groups of digits separated by a dash.

The first group shows the lesson number, in this case lesson 4.

The second gives the ratio of the number of lines repeated to the number of lines typed in build speed and Paws' Game. In this case John did not repeat any of the nine lines he typed.

The third group consists of a series of ones or zeroes, one for each lesson part (lessons have between five and eight parts). A one (1) indicates that the lesson part was completed, while a zero (0) indicates that part was not completed. John has completed all five sections of this lesson.

The final digit is a recommendation of what the student should do next. A one indicates the student should be ready to do the next lesson, while a zero suggests that further practice is necessary in this lesson.

If you do not have a printer available, encourage students to use the report form (see page 8) to keep a record of their progress. (This form may be copied freely.)

The wonderful world of *Paws*

Report form

_____
(Today's date)

_____
(Your name)

your best typing rate was _____ words a minute.
                          (Speed)

Your highest point total was _____.
                             (Total points)

Lesson code: _____

Operating instructions

Please make a copy of each of these disks. Put the originals away in a safe place for backup and use the copies. You are permitted to make one backup copy of each disk for use in your institution. **Any attempt to distribute copies of these disks outside your institution will be viewed as a serious breach of copyright and will result in legal proceedings being initiated against the individual(s) involved and their employer.**

Getting started on the Apple

1. Put the *Paws* disk (label side up) in the disk drive. (Do not shut the door of the drive yet.)
2. Switch on the monitor.
3. Switch on the computer.
4. When the red light on the disk drive is glowing, shut the door of the drive.
5. The *Paws* title screen will appear after a short time. Once the title screen has appeared, press the SPACE BAR to start the program.

If you intend using a printer with *Paws*, make sure the printer card is in slot #1.

Getting started on the Commodore 64

1. Switch on the computer.
2. Switch on the monitor.
3. Switch on the disk drive.
4. When the red light on the disk drive goes out, put the disk (label side up) in the drive and shut the door of the drive.
5. Type   LOAD "PAWS",8,1   then press RETURN.
6. Wait for the program to load. When loaded, the title screen will appear. Press the SPACE BAR to start the program.

Using a printer

You can use a printer to obtain a permanent copy of the report displayed at the end of a lesson, or to make a copy of what was typed on the open screen.

If using an Apple, the printer interface card should be in slot #1. Before using the printer, make the following checks:
1. Is the printer turned on?
2. Is it "on line"?
3. Is there enough paper?
4. Is the paper threaded through the printer correctly?
5. Is the cable between the printer and the computer plugged in properly at both ends?